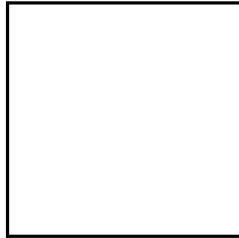


000 - 1850-66

18 April 1966

25X1A

To:



From:

Subject: INLET AND OUTLET SUIT VENT AIR TEMPERATURE MEASUREMENTS

During our last visit [redacted] we agreed to obtain measurements of the actual suit vent air, both for the inlet and outlet valves. [redacted] has agreed that he can supply the instrumentation to do this and the attached prints show that installation.

25X1A

25X1A

We have made this as a flight test SAM since it is instrumentation work only. We will provide any parts that you desire if you or Bob will advise us which ones.

Everyone would like to see these measurements made as soon as possible since they are crucial in determining exactly what kind of a problem the pilot has in the cockpit in regard to heat and temperature discomfort. We would hope to make measurements on several pilots and several airplanes in order to get data that can be completely evaluated. If this is done immediately we will have temperature data on the present non-insulated suits which can be compared to data obtained from insulated pressure suits which should be arriving [redacted] in the next week or two.

25X1

25X1A



meb

25X1A

cc:



(w/e) ✓

Engineer: 25X1A

Spares: 1

Proj. Off.

Date:

FOR SHIP/EQPT. SERIAL NO. 125 127 128 129 130

127, 131, 132

TITLE: INSTRUMENTATION - PRESS

SUIT VENT AIR TEST

PURPOSE:

TO ACQUIRE TEMPERATURE
DATA ON SUIT VENT AIR.

WHEN TO BE DONE:

☐ Mandatory -
Safety of Flight☐ At Convenience☒ Other

Work Completed

Date: _____

Foreman: _____

Inspector: _____

KIT

FTAG 6

FTAG 7

Ref. Dwg. No. _____

E&M Manual, pp. _____

Approx. Date Kits Available at BW-1: 14 E

Est. Manhours

Wt. & Balance Change: 12.5

to Compl. _____

Parts Affected	Disposition
DH 208-31-1	AFIP - 1 F. 100 - 1 AFIP DH 208-31-1

Kit Completed by	
Contractor	_____
Date:	_____
Inspector:	_____

DESCRIPTION OF CHANGE:

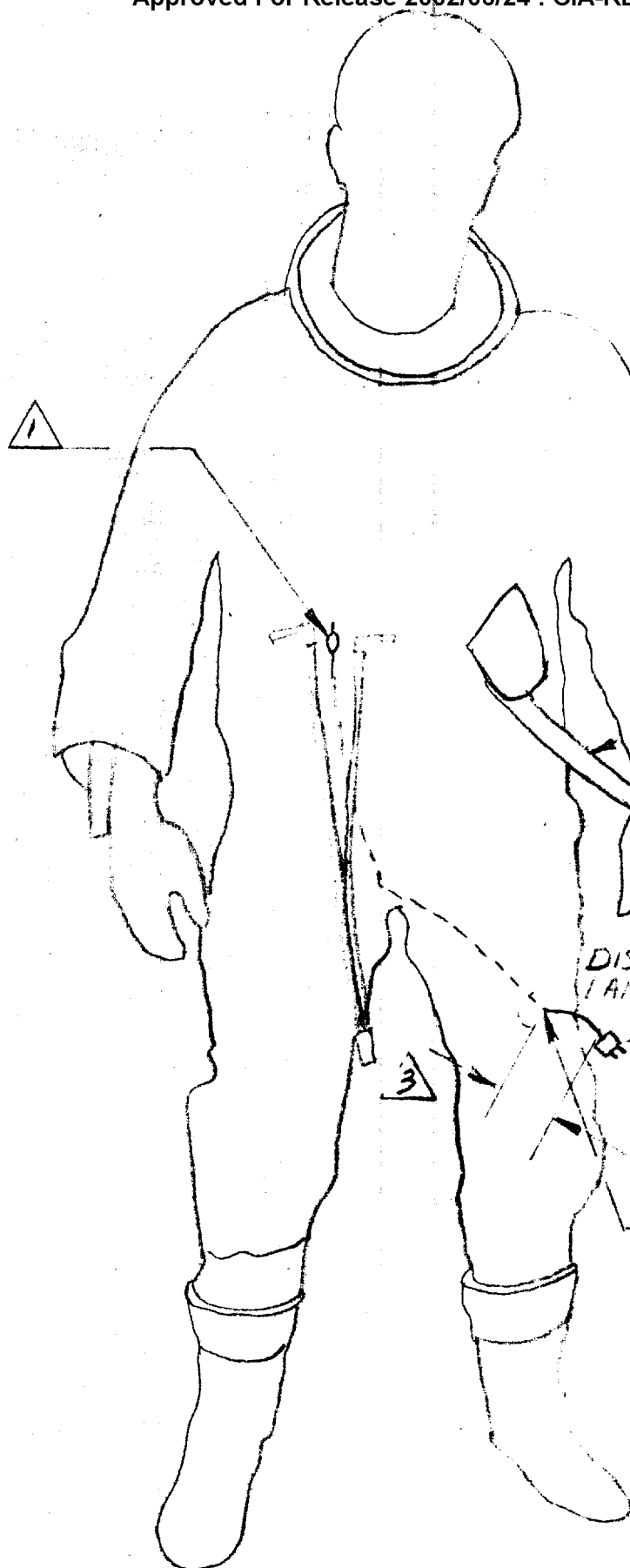
INSTRUMENTATION TO BE ADDED BY: -

(A) PRESS SUIT ~

(R) AIRPLANE ~

ALL PARTS AVAILABLE

25X1A



1 ADD THERMOCOUPLE
PER E. KORBIN & GATINEAU
AT BW-3. LOCATE INSIDE
SUIT AT SUIT CONTROLLER
OUTFLOW VALVE PER P.
BANKS AT BW-3 FLIGHT
OPERATIONS

2 EXIT AT ALTIMETER
FITTING. EPOXY
AROUND HOLE TO
SEAL AGAINST AIR
LEAKAGE. DRILL MIN.
HOLE SIZE

2.5" 208-108 1001
AMO
DN208-108-1
ELBOW - 1 REQ.
DRILL MAX DIA.
HOLE INSERT
THERMOCOUPLE
EPOXY TO SEAL
LOCATE OUTBOARD
DISCONNECT THERMOC. WIRE
TYPE 4403 PLUG (1 REQ.)
THERMOC. ELEMENT 1 REQ.
ADJUST PLUG & WIRING
3.00" JACK TO MAX. RELEASE
FORCE OF 10 LBS.
2 ROUND EXPOSED
CORNERS SEE FTAQ 7
SHEATH WIRE TO
PREVENT FAILURE OF
WIRE AND INSULATION
DURING PILOT'S LEG
MOVEMENT. AVAILABLE
AT BW-3

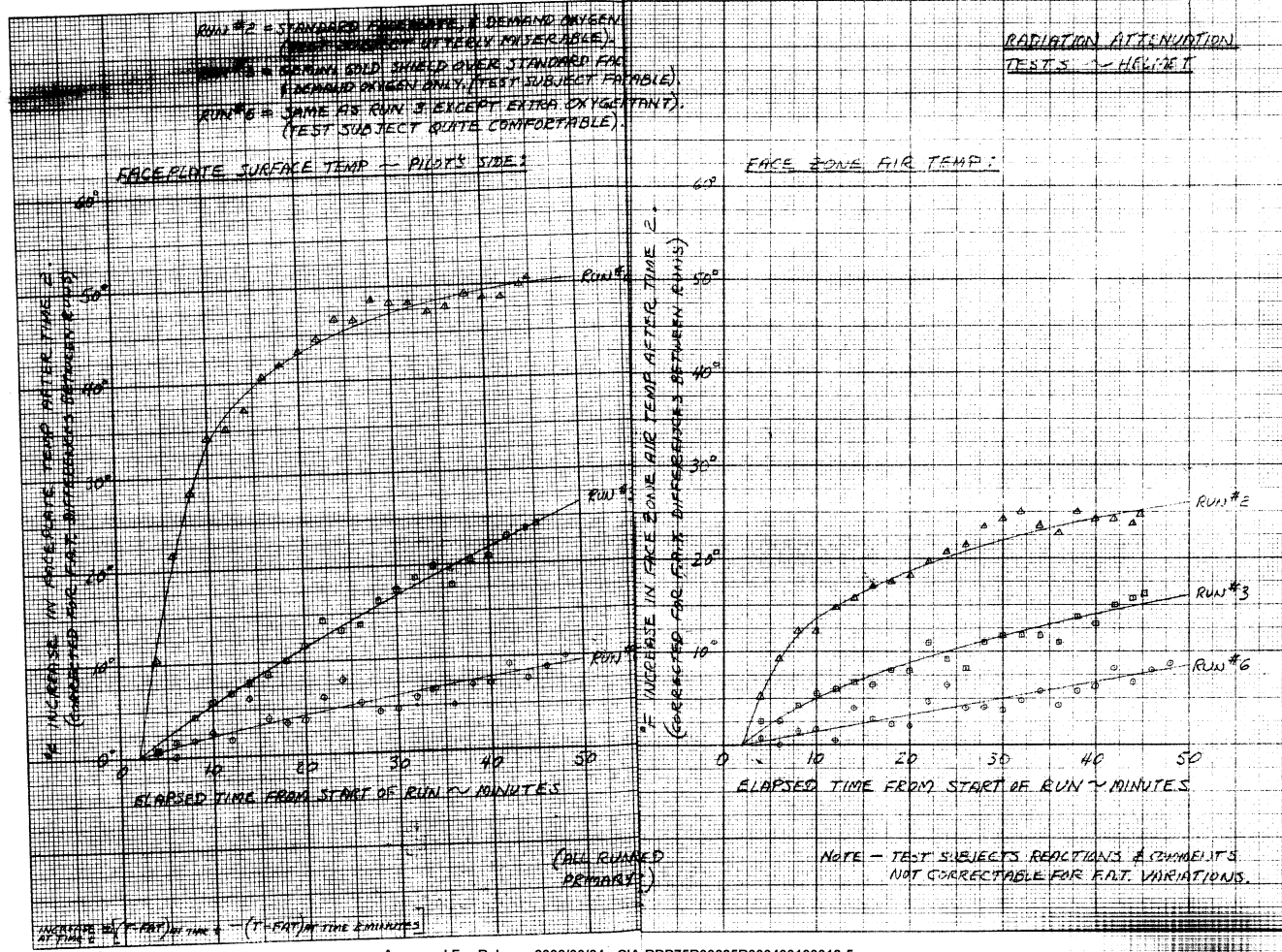
3 NOTE: MOCKUP AND CHECK LENGTHS
WITH PILOTS BEFORE
MAKING CHANGES

FTAQ 7
INSTRUMENTATION 25X1A
DRESS SUIT AIR TEMP.

PREPARED BY: [REDACTED]
DATE: 5-2-60
CHECKED BY: [REDACTED]

LOCKHEED CALIFORNIA COMP
A DIVISION OF LOCKHEED AIRCRAFT CORPORATION

PAGE: 1
MODEL: [REDACTED]
REPORT NO: [REDACTED]

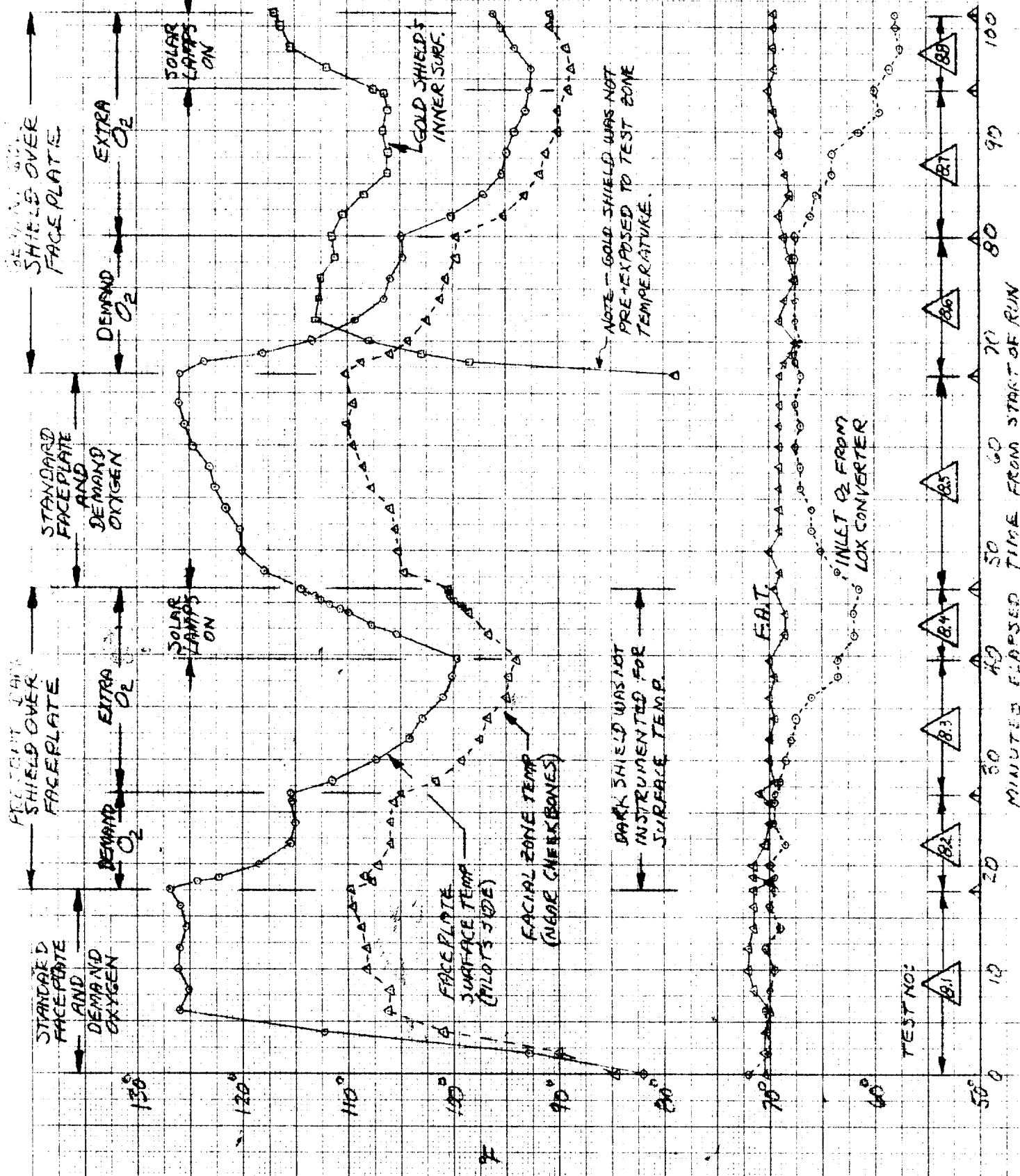


RADIATION ATTENUATION TEST ~ HELMET

25X1A

RUN #8 OF 3-8-66, WITH SEQUENTIAL IMPROVEMENTS APPLIED. TEST SUBJECT [REDACTED]

(PRIMARY SPRAY-BAR ONLY)

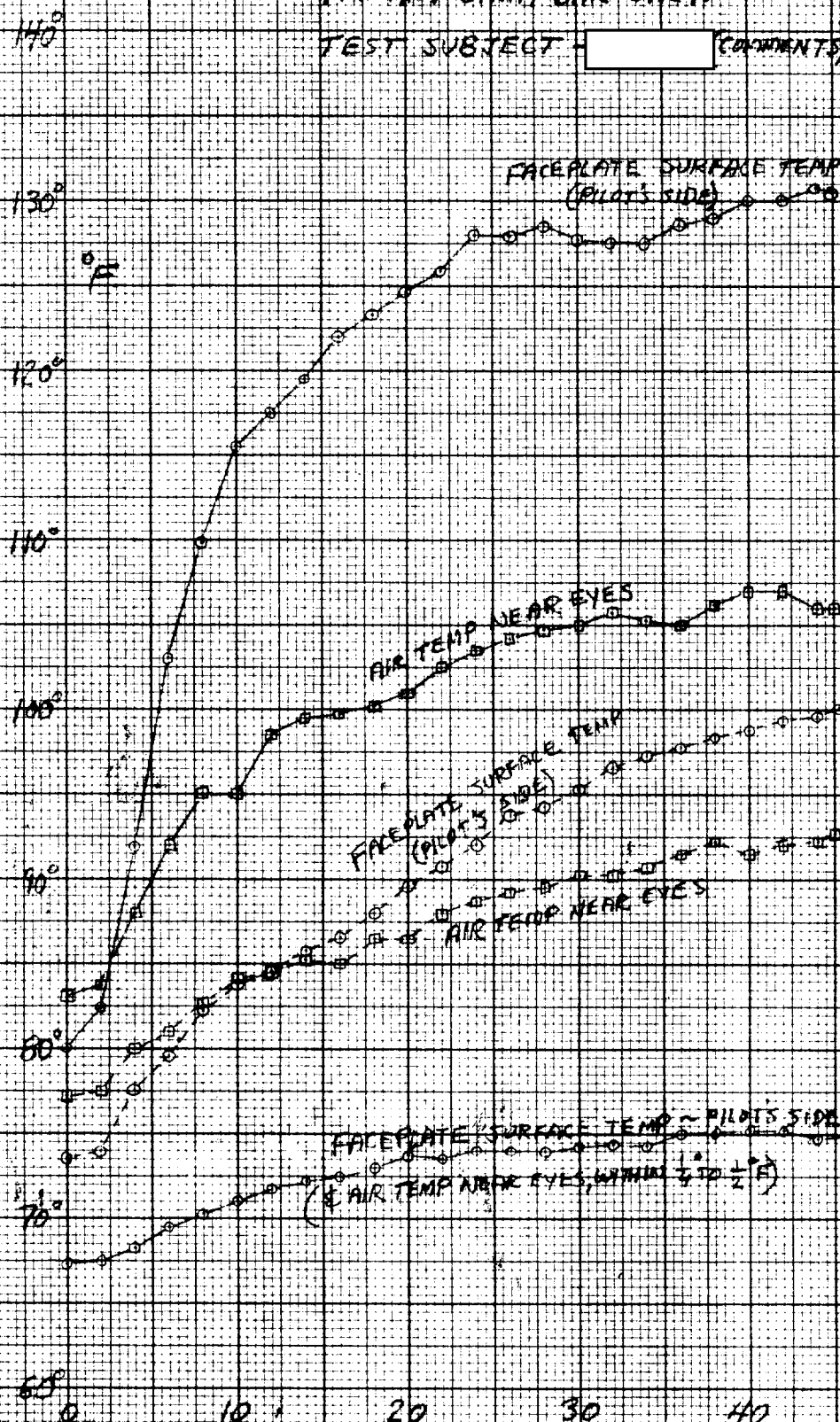


RADIATION ATTENUATION TESTS - HELMET

THESE RUNS MADE WITH BOX CONVERTER,
PRIMARY SPRAY BAR ONLY.

TEST SUBJECT (COMMENTS)

25X1A



RUN #2 OF 2-23-66:

STD. FACEPLATE ONLY.
800 TO 810°F CALRAD SURF.
O₂ INLET = 71.4°F (MEAN)
AMBIENT = 71.7°F (MEAN)
DEMAND OXYGEN ONLY.

RUN #3 OF 2-24-66:

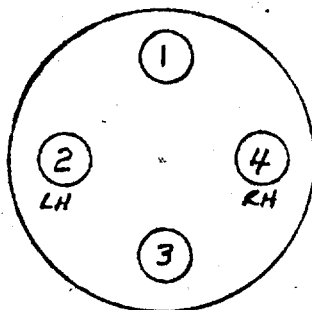
GEMINI'S GOLD PLATED
SHIELD OVER STANDARD
FACEPLATE.
800 TO 810°F CALRAD SURF.
O₂ INLET = 65.2°F (MEAN)
AMBIENT = 66.4°F (MEAN).
DEMAND OXYGEN ONLY.

RUN #6 OF 3-2-66:

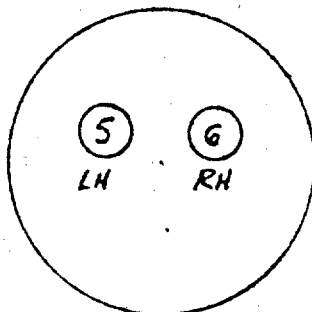
GEMINI PLUS EXTRA O₂
(89 LPM TOTAL O₂ FLOW).
850 TO 880°F CALRAD SURF.
O₂ INLET = 53.2°F (MEAN)
AMBIENT = 59.7°F (MEAN)

TIME ~ MINUTES ~ FROM START OF RUN

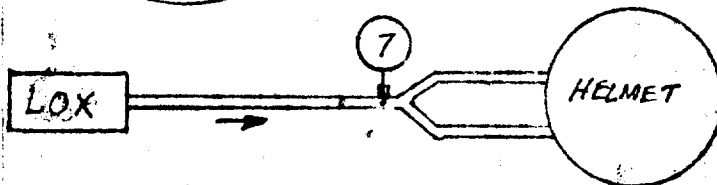
THERMOCOUPLE LOCATIONS - HELMET RUNS



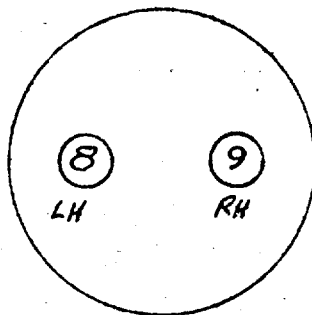
INNER SURFACE OF
FACEPLATE PROPER
(VIEW LOOKING OUT
FROM SUBJECT'S FACE)



AIRSPACE WITHIN
FACEPLATED ZONE
(NEAR CHEEKBONES)



O₂ TEMP TO
HELMET



INNER SURFACE OF
OUTER GOLD SHIELD

⑩ UNUSED

⑪ ICE BATH

⑫ AMBIENT AIR TEMP
AT BROWN RECORDER

DBC

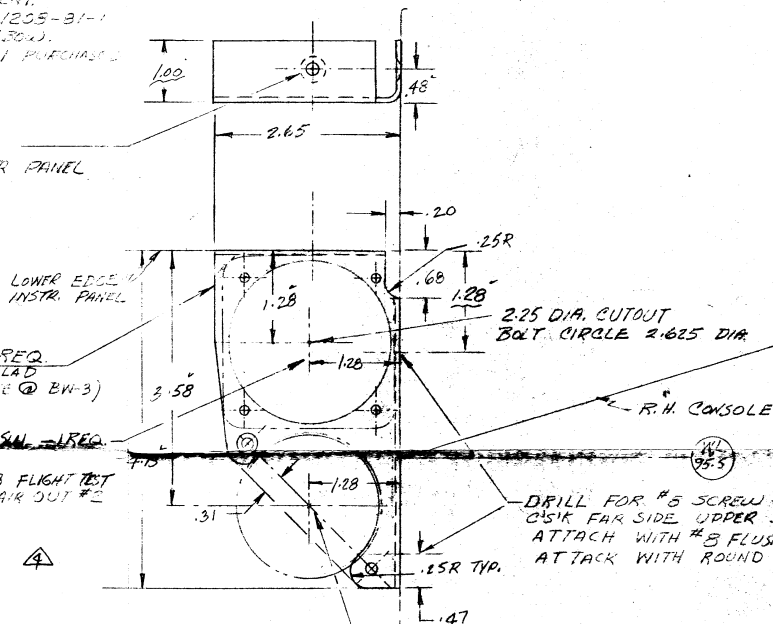
V TO SAVE T.O's	LET.	CHANGE	SERIAL	DTG

1. OMIT
- △ DETERMINE LENGTH FROM MOCKUP WITH PILOT SITTING IN THE AIRPLANE. SHEATH THE WIRES TO PREVENT FAILURE OF WIRE AND INSULATION FROM PILOT'S LEG MOVEMENT DURING RUDDER ACTUATION ②.
- △ DETERMINE LENGTH FROM SEAT VERTICAL ADJUSTMENT. SEE FTAQ 6 FOR THERMOCOUPLE INSTALLATION IN DN203-31-1 ELBOW. INSTALL THERMOCOUPLE IN EXISTING SH-1 ELBOW. REPLACE ELBOW AFTER TEST WITH NEW DN203-31-1 PURCHASED ON AFGO 51948.

5. COORDINATE ALL INSTRUMENTATION ON SUIT & AIRPLANE WITH [REDACTED] BW-3, INSTRUMENTATION

△ ④ BOTTOM OF PAGE

BACK C/S/K
PICKUP INSTR. PANEL
SCREW



② BRACKET - 1 REQ.
252374 ALCLAD
B.R. .16 (MAKE @ BW-3)

JMSS JACK - 1 REQ.
AVAILABLE AT BW-3
MATE WITH PRESS. SUIT
PLUG. ADJUST PLUG TO
SEPARATE A .0155.
MAX. SEE DETAIL

LEWD ENGINEERING
AVAILABLE AT BW-3 FLIGHT TEST
VENT AIR IN #1, VENT AIR OUT #2
DN203-31-1 (RER)
SEE FTAQ 6 FOR
THERMOCOUPLE INST'L. ④

18023 CLAMP - 1 REQ.
DS2276 CUTOUT & HOLES
BH185R-93 IND. - 1 REQ.
HOWE'L INSTR. AVAILABLE AT
BW-3 FLIGHT TEST.

DETAIL A (FULL SIZE)

RUN CABLE ON FLOOR & SIDE CONSOLE
COVER WITH HEAVY TAPE

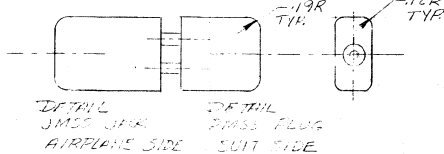
W.L. 35.5

W.L. 35.5

ANCHOR CABLE TO
SIDE CONSOLE WITH SUITABLE
CLAMP & 1015 SCREWS
LOCATE AT SUITABLE PLACE
FROM MOCKUP WITH PILOT SITTING
IN THE AIRPLANE IN SUIT/FTAQ 6 DRAWING.

LOOKING
FWD
VIO SIZE

BL 1300R



INSTALL ON S/H 125, 127, 128, 129, 130
121, 121, 127

LOCKHEED-CALIFORNIA COMPANY A DIVISION OF LOCKHEED AIRCRAFT CORPORATION ADVANCED DEVELOPMENT PROJECTS		NO. REQ.	MODEL	NEXT ASSEM.
MFG. PER LAC PROCESS SPEC. OR FINISH AS NOTED		REQUIREMENTS PER SHIP		
TOLERANCES EXCEPT AS NOTED XX ± .01 XXX ± .02		DRAWN		
SCALE		MATEL		
		APPROV		
		FTAQ 7		

